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**EARLY DIAGNOSIS OF PUERPERAL INFLAMMATION OF THE
EYEBALL.**

By HENRY W. WILLIAMS, M.D., BOSTON.

[Read before the Boston Society for Medical Improvement, Feb. 18th, 1865, and communicated for the Boston Medical and Surgical Journal.]

On the 12th of January, 1865, I saw a lady of about 25 years of age, Mrs. —, who had been confined four weeks previously. Though not getting up well, her symptoms had not assumed a serious character, but had been those of debility. On the morning of that day, however, she complained of enfeebled sight in the right eye, and, by afternoon, the loss of vision had become complete. Slight irregularity of the pupil and considerable chemosis beneath the conjunctiva were noticed by her attending physicians. I saw her in consultation in the evening, and found, in addition to the above symptoms, a slight tenderness of the globe when pressed upon, and a total want of perception of light. The chemosis and a slight oedema of the lid made it difficult to determine if there was any increased tension of the globe, as the infiltrated tissues had the effect, as it were, of a cushion interposed between the finger and the eyeball, and, with the tenderness, of which the patient complained, prevented such pressure from being made as was necessary to determine the presence or absence of abnormal hardness.

In order not to fatigue the patient, an ophthalmoscopic examination was made while she remained in the recumbent posture. The pupil was found to have become adherent at several points to the capsule of the lens; but otherwise its area seemed sufficiently clear to allow of a view of the fundus of the eye. This could not, however, be seen—neither the papilla nor the retinal vessels being distinguishable; but a greyish opacity was observed, apparently almost at the fundus, which resembled in color, though not in other appearances, a separation of the retina.

The diagnosis made was, that fibrinous exudation had taken place

VOL. LXXII.—No. 4

in the posterior part of the eyeball, and that this was perhaps a commencement of suppurative ophthalmitis.

As the lady complained of no pain, and as her general condition was such as to forbid a too active treatment, I could only advise the use of atropia, to detach the recent adhesions of the edge of the pupil and lessen the congestion of the internal vessels. Tonic general treatment was continued.

On the morning of the 13th, the chemosis and the tenderness on pressure had slightly increased. The adhesions had partially yielded to the atropia, allowing of irregular dilatation of the pupil. At evening the oedema of the lids had increased, and there was more tenderness.

On the 15th the lids were less oedematous and could be more readily opened, and the chemosis had partially subsided. The pupil was moderately dilated. No change was observable upon simple inspection of the field of the pupil, and, as the patient had during the last two days become gradually weaker, no examination was made with the ophthalmoscope. She died on the morning of the 17th.

At the autopsy, made by Drs. Green and Swan, 24 hours after death, some serous fluid, perhaps effused shortly before death, was found within the meninges—the kidneys soft and friable; but it was difficult to determine what was the cause of death. The eye was removed and carefully examined. On making a section across the equator of the globe, a portion of the retina was found to have become raised from the choroïd by serous effusion. Near the optic nerve entrance a small collection of pus was found between the retina and the choroïd. The retina was thickened throughout its whole extent, and spots of extravasation were seen here and there. Near the ora serrata the retina and vitreous had become incorporated into a tough yellowish fibrinous mass, apparently just ready to undergo purulent transformation; an opinion which was confirmed on microscopic examination.

Had this patient lived and been in a less asthenic condition, there is every probability that the symptoms of active inflammation of the entire globe would soon have declared themselves, unless averted by suitable treatment; a consideration which indicates the importance of an early recognition of the first symptoms of this rare but very grave affection.

Arlington Street, 13th February, 1865.

THE smallpox has been prevailing very extensively for some time past. In New Orleans the disease seems to be epidemic. Jan. 8th there were not less than fifteen hundred cases in the city and vicinity. More than one hundred patients had been admitted into the hospitals in one day, and the average was not far from seventy-five a day. An extensive smallpox hospital has just been completed, capable of accommodating five hundred patients.

SUBCUTANEOUS INJECTION OF MORPHIA TO CHECK OBSTINATE VOMITING.

By A. W. THOMPSON, M.D., NORTHAMPTON, MASS.

[Communicated for the Boston Medical and Surgical Journal.]

PATIENT 22 years old; temperament nervous-sanguine; organization delicate but well balanced; has never been sickly, but is less robust than her brothers and sisters. Years ago had colic occasionally; and before her marriage, which occurred a year since, and while at the head of a difficult school, was sick a few times during the two or three years of my cognizance of her health, with menorrhagia, following an omitted menstrual period or two. She is not at all an invalid, but has a dominating brain and nervous system.

CASE.—The patient was visited at one o'clock, A. M., of the night after last Thanksgiving (25th Nov., 1864). Was then in the third month of her first pregnancy. Almost since conception has suffered considerably from nausea, lassitude, and vitiated functions of alimentary canal and associated organs. A fortnight previously, applying for advice, she was treated with *mass. pil. hydrarg.*, followed by *pil. rhei c.*, and then put upon regular, gentle laxatives, diet prescribed, and a rational degree of rest of mind, body and stomach carefully enjoined. She was immediately better, and has since suffered scarcely at all from previous symptoms.

On the day previous to my visit, however, she sadly disobeyed orders. She attended church, walked a mile to a friend's, where she partook zealously of Thanksgiving dinner, joined a sleigh-riding party, walked home, and finally made a call in the evening.

At ten o'clock, P. M., she began to vomit—nausea and straining excessive. During the three hours before I first saw her, sinapisms had been applied to the epigastrium, and she had tried pills of calomel and opium—half a grain of each in a pill—but the pills were rejected as fast as swallowed.

At one o'clock, A. M., she was vomiting, principally digested food, with some admixture of bile; nausea, retching, prostration and anxiety considerable. A scruple of *pulv. ipecac.* was soon administered, and she was encouraged to drink freely of an herb tea (thoroughwort) at the same time. After copious vomiting, which occurred at the expiration of a tranquil interval of about twenty minutes from the time she took the emetic, she was quite easy for nearly an hour. I then left her, ordering reapplication of mustard, strict rest, nothing to be swallowed, and an opium pill at the end of another hour, if vomiting should not return and the patient should not sleep.

At six o'clock, A. M., word was brought that "she had been vomiting bilious frothy stuff" constantly since shortly after I left. Ordered ten drops of *spiritus ammoniæ aromat.* in water, to be repeated in half an hour.

At ten o'clock, A. M., patient was again visited. Condition aggra-

vated—pulse small, and extremities cold; vomiting, or efforts to vomit, almost incessant. Creasote was tried; one drop in demulcent solution every half hour.

One o'clock, P.M., no change for the better. Hypodermic injection of morphine was resolved upon. One fourth of a grain of the acetate of morphia, dissolved in one drachm of pure water, was deposited under the skin of the arm above the elbow. Apparently the mental impression, and slight shock from the little operation arrested vomiting for the time being. It did not return. Fifteen minutes after the exhibition of the remedy, she said, smilingly, that "she was all right;" fifteen minutes more, and she was asleep—neither vomiting nor nausea returned. The patient recovered rapidly; and has, down to present writing (24th Jan., 1865), been as comfortable as the average of women in her situation.

DR. A. R. BECKER'S PRIZE ESSAY ON GUN-SHOT WOUNDS.

[Continued from page 55.]

CHAPTER II.

Chloroform; Primary and Secondary Hemorrhage; Tetanus; Gangrene.

Nowhere do we so thoroughly appreciate the advantages of anesthetics as in the field. We are enabled by them to soothe the agony produced by the terrible wounds which continually come under our notice in war, and also with their aid to perform many operations which were otherwise impossible. Macleod gives his opinion very decidedly on this subject in these words:—"For my own part, I never had reason for one moment to doubt the unfailing good and universal applicability of chloroform in gun-shot wounds, *if properly administered*. I most conscientiously believe that its use in our army directly saved many lives; that many operations necessary for this end were performed by its assistance which could not otherwise have been attempted; that these operations were more successfully, because more carefully executed; that life was often saved even by the avoidance of pain; the *morale* of the wounded better sustained, and the courage and comfort of the surgeon increased. . . . I think I have seen enough of its effects to conclude that if its action is not carried beyond the stage necessary for operation, it does not increase the depression which results from injury, but that, on the contrary, it in many instances supports the strength under operation." Many prefer ether to chloroform, believing the latter to be a most dangerous agent. But if the surgeon will assure himself that there exists no disease of the heart, brain or lungs in the patient; if proper care be taken to give free access to the atmospheric air, and the pulse of the patient be carefully watched, I do not be-

lieve that any pernicious effects will be found to follow the use of chloroform. (To men who have lost much blood, however, it must of course be administered with great care, from the rapidity of its absorption by such persons.) Our distinguished surgeon, J. M. Carnochan, M.D.P., of New York, has been kind enough to allow me to quote his experience on this subject. He says:—"I have administered chloroform in about three thousand (3,000) cases, and so far I have never had any fatal effects resulting from its administration in my hands. . . . I would, moreover, state that I invariably use the pure Scotch chloroform, regarding ether, or the combination of ether and chloroform, as recommended by some physicians, as entirely inferior."

Chloroform is more applicable to field service: 1st, because a much less quantity is needful to bring a patient under its anæsthetic influence; 2d, because its action is more prompt; and, 3d, because it is much less likely to produce nausea and vomiting than ether. And these are important considerations, where time is so valuable.

Hæmorrhage was in old times the Military Surgeon's great bug-bear. Since, however, we have found out that it is not of such frequent occurrence on the field as was supposed, and the means of arresting it are better understood, it is not so much feared. There is, it is true, a gush of blood when an artery is opened by a ball; but the artery soon retracts and closes itself. Larrey mentions a case where a soldier, struck on the lower third of the thigh by a ball, suffered one severe hæmorrhage, which was never repeated. The limb became cold, the popliteal ceased to beat, and the ends of the divided femoral could be felt when the finger was placed in the wound. This man recovered perfectly. And the younger Larrey records a case from the wounded of the siege of Antwerp. A shell passed between a man's thighs, and, destroying the soft parts, divided both femorals; yet there was no hæmorrhage, although the pulsation continued in the upper ends of the vessels to within a few lines of their extremities.

There has been a great deal said about the advantage of carrying a number of tourniquets into the field, to arrest primary hæmorrhage; but the surgeon's place in battle being at the rear, he has but little opportunity to carry this suggestion into effect. An intelligent soldier, however, can easily make a tourniquet with his handkerchief and bayonet, or a piece of stick.

I have before alluded to the strange manner in which arteries sometimes escape injury. The following case came under my notice during the Peninsular Campaign in Virginia. A ball passed through the neck of a soldier, just posterior to the carotids on both sides, and anterior to the spine. This man recovered perfectly in a very short time, not having had a bad symptom. Dr. Macleod relates two or three cases, so remarkable that I cannot help quoting them: "A soldier of the Buffs was wounded by a rifle-ball, which struck

him in the nape of the neck. It passed forwards round the right side of the neck, going deeply through the tissues; turning up under the angle of the inferior maxilla, it fractured the superior maxillary and malar bones, destroyed the eye, and escaped, killing a man who was sitting beside him. This patient made a rapid recovery.—A French soldier, at the Alma, was struck obliquely by a rifle-ball, near to but outside the right nipple; the ball passed seemingly quite through the vessels and nerves in the axilla, and escaped behind. His cure was rapid and uninterrupted.—Another Frenchman was struck in the trenches by a ball, a little below the middle of the right clavicle. The ball escaped behind, breaking off the upper third of the posterior border of the scapula, and yet he recovered perfectly, without any bleeding taking place."

I had, last June, the opportunity of seeing a very interesting case at Hampton Hospital, Virginia, which was under the care of my friend Dr. Charles F. Bullen, of Montreal, C. E. (at that time Act. Assis't Surgeon U.S.A.), and of which he was kind enough to give me a copy of his notes. "Adam Grinn, private, Co. D, 7th Conn. Vols., aged 21, was wounded before Petersburg June 9th, 1864, by a rifle-ball, which fractured the acromion end of the right clavicle, passed beneath the scapula and out below the lower border. On admission to the Hospital, three days after the injury, some fragments of bone were removed. The wound looked healthy, and continued discharging laudable pus and granulating till June 28th, 11, A.M., when secondary hæmorrhage occurred. He then lost about six ounces of blood before it was checked by pressure.

June 29th, 10, A.M.—Hæmorrhage again occurred, more severely than before, losing from fourteen to sixteen ounces of blood. The cavity of the wound was by this time much enlarged. The hæmorrhage was again apparently checked by plugging the wound with lint saturated with perchloride of iron. But in two hours the whole of the tissues between the wound and the neck were engorged with blood, the swelling rapidly increasing, and thus showing that he was still bleeding. After consultation, it was decided to stimulate freely and give narcotics to relieve pain, and let him remain till morning.

June 30th, 11, A.M., being in about the same condition—the tongue dry and glazed, pulse 120 and very weak, and with the engorgement gradually increasing—the subclavian was ligated successfully in the first part of its course. Coagula were then removed from the cavity of the wound, and it was syringed out with ice-water, no bleeding being apparent. Immediately after the operation he rallied; the tongue became moist; pulse at left wrist 110, at right wrist none. The temperature of both arms was the same, and continued so throughout.

July 1st, 10, A.M.—Left pulse 110, right barely perceptible. Patient in good spirits; takes nourishment freely, but complains of pain in swallowing. 10, P.M.—Left pulse 112, right same as in the

morning. Ordered R. Liq. ammon. acetat., 3 i; tinct. aconit. $\mathfrak{w} \cdot \mathfrak{v}$.; to be taken every four hours.

2d.—Left pulse 110, right increasing a little in strength; no pain in swallowing, and improving.

3d.—Left pulse 108, right same as yesterday.

4th.—Left pulse 100, right same as yesterday; takes nourishment freely, and both wounds looking healthy and well.

5th.—Left pulse 96, right same as yesterday.

6th.—Left pulse 90, right same as yesterday. Omit medicine.

7th.—Left pulse 90, right same as yesterday. Complains of pain in the region of the heart, but no abnormal sounds heard.

8th.—Left pulse 120, right same as before; tongue dry and glazed. At 9, P.M., he had a rigor.

9th, 7, A.M.—A slight hæmorrhage from the point where the artery was ligated. The wound was plugged and pressure employed. At 10, A.M., the hæmorrhage recurred more severely than before. From this time until evening there were repeated hæmorrhages; the patient gradually sank, and died at 8, P.M., remaining sensible to the last.

Autopsy.—Both the suprascapular and posterior scapular arteries were found to be in a sloughing condition, which was apparently the cause of the last hæmorrhages. The subclavian was ligated about half an inch from its origin. The ligature had come away, and the coats of the artery were ulcerated through. On the cardiac side a slight clot had formed, but on the distal side the clot was larger, firmer, and more perfectly organized.

This case is exceedingly interesting, both on account of the infrequency of the operation and because the man lived so long after its performance—nine days and eight hours; and at one time it really seemed as if he would recover.

Hæmorrhage should be divided into three periods: "primary," occurring within twenty-four hours; "intermediary," between that and the tenth day, caused by sloughing resulting directly from the injury; and "secondary," that which takes place at a later date, from ulceration or other morbid action. There have been various opinions in regard to the period at which hæmorrhage is most likely to occur. Guthrie says from the eighth to the twentieth day; Dupuytren, from the tenth to the twentieth; Henman, from the fifth to the eleventh; Roux, from the sixth to the twentieth; and Macleod, from the fifth to the twenty-fifth—the majority appearing on the fifteenth day after the receipt of the wound.

In field practice, it is often impossible to give the wounded the rest and quiet of mind and body which they require, and by which secondary hæmorrhage would frequently be avoided. Previous debility will also be likely to favor hæmorrhage; as has occurred in many cases in our army, when the men were more or less exhausted by continued diarrhoea.

Hæmorrhage should be controlled by pressure, cold, styptics, ligature of the end of the artery, and, in severe cases, by ligature of the main trunk of the artery.

Tetanus, fortunately, is a very rare complication. Alcock sets the proportion at one in seventy-nine; but in the Crimea, Macleod was only able to discover thirteen cases. I have not been able to find sufficient data to enable me to fix the frequency of its occurrence in our army. Opinions vary in regard to the causes of this dreadful disease; but it is certain that unextracted balls are a prolific cause of its development. In the Indies, heat is considered as the cause; while Dr. Kane gives intense cold as the cause of the great number of cases which occurred among his men.

Romberg sums up his view of the treatment thus:—"The results of treatment amount to this, that whenever tetanus puts on the acute form, no curative proceeding will prevail; whilst in the milder and more tardy forms, the most various remedies have been followed by a cure." Larrey trusted most to opium and camphor, with section of the nerve in cases adapted for it. Opium and chloroform seem, however, to have the greatest amount of evidence in their favor.

I will quote one instance of tetanus from Dr. Macleod's excellent work. "Barker, a private of the 38th Reg't, aged 20, was admitted into the general hospital in camp, June 18th. A ball had penetrated his left thigh at its inner and lower aspect, and lodged. Four days afterwards it was found near the wound, and removed. By the 28th, the wound was looking sloughy, and the discharge was thin and unhealthy. He complained much more about his wound than was usual, and appeared very anxious. On the 30th, I noticed some twitching of the limb as it was being dressed. His bowels were free, but he complained of sleeping little at night. The wound was freely enlarged, and covered with a poultice. He was purged with croton oil and clysters. He grew gradually worse. During the two succeeding days the spasms were very decidedly pronounced over the left side. He described them himself as proceeding in 'flashes' from his wound to the spine, and back again. Touching the limb, and especially the sole of the foot, immediately aroused the most violent spasmodic contractions. His pulse rose to 92, and his respirations to 29 per minute. He did not complain of pain, but was greatly distressed by a thick spit, which clung to his teeth, and which he was always making violent efforts to expel. The left side of the body was almost alone affected, and the spasms drew him diagonally backwards, and to the wounded side. He had no trismus for the first day, but afterwards it became marked. He always said, that he was sure if he could only sleep he would be all right. I brought him under the influence of chloroform, and while its effects continued the spasms were relieved, and certainly the pulse and respirations were reduced in frequency; but as soon as he awoke, all his worst symptoms returned in undiminished vigor. Having seen the

utter futility of chloroform to relieve the spasms permanently, or to arrest the disease, in two former cases at home, where the anæsthetic had been fairly tried, I determined to abandon it and trust to opium. This, with enemata, nourishing food, and local emollient applications, comprehended all the treatment. The symptoms were not abated, except for short intervals, and then only in proportion as sleep was procured. His skin was always covered with an odorous perspiration. The abdomen got distended and hard. The muscles of the back were markedly hard and contracted, particularly on the left side. The left leg was stretched out spasmodically, every muscle defined. The right limb was drawn up, and he lay across the bed. The wound was sloughy, and shreds of fascia escaped with the discharge. The urine became scanty and high colored, and required to be drawn off by the catheter. Eventually he suffered much pain in the left groin and calf of the leg, as well as at the ensiform cartilage. When trying to raise himself on his elbow, on the fifth day of the attack, and seventeenth after admission, he was violently convulsed, so that he was bent greatly backwards; he put his hand to his throat as if choking, and fell back dead. The wound was found to be lined with an ashy slough. The bone was not injured. The fascia lata was much torn, and was pierced and ulcerated at a spot on the anterior and external aspect of the limb, some little distance from the wound. The ball had evidently penetrated to this point. No nerve fibres could be detected near the wound. The parts in the neighborhood were sound. The brain and internal organs were healthy. The lungs were only slightly congested, and viscid mucus was present in the larger tubes. The spinal canal contained a good deal of fluid blood. The cord and its membranes were congested. In the lower cervical and upper dorsal regions, the substance of the cord was varicose—contracted and expanded into a series of knots. There was no other pathological appearance."

I should add, that Sir James M'Gregor affirms that this disease never makes its appearance after the twenty-second day.

We now come to another fearful complication of gun-shot wounds—Gangrene. It is sometimes contagious, and spreads over whole wards and hospitals; but more frequently, I think, it attacks only those whose general standard of health is greatly lowered. The earliest symptom is pain in the part, which sometimes precedes the ulcerative process by a couple of days. As a general thing, the edges of the wound do not swell up, but remain thin while they are undermined. The pain usually continues during the process of destruction. It appears chiefly in the lower extremities, and in wounds whose progress towards cure has been for some time stationary. It seldom burrows far into the intermuscular tissues, but confines its ravages to the surface and circumference of the wound.

In the treatment of gangrene there are two things to be accom-

plished: 1st, to arrest the sloughing process; and 2d, to keep up the general condition of the patient by every possible means. For a local application, the permanganate of potash, or, still better, the concentrated muriatic or nitric acids, will be found the most useful. These applications should be followed by anodyne poultices, as yeast and lupulin—the lupulin for its anodyne properties, and the yeast to aid in the separation of the slough by fermentation. Opium should also be administered freely (internally)—six to eight or ten grains per day. Opium is useful, and in fact necessary, to produce sleep and to allay the pain and nausea. It is also thought to aid in restoring the healthy action through the capillaries. The constitutional treatment should be continued by the administration of tinct. ferri, \mathfrak{xx} ., or even \mathfrak{xxx} ., three times daily. Porter is also of much benefit, and two or three pint bottles may be given daily. And milk punch, or, still better, eggnog is almost invaluable; it should be made in the proportion of two thirds milk and one third brandy. In short, the local treatment should be of the strongest destructive character, and the constitutional treatment of the strongest tonic character. There are undoubtedly two kinds of gangrene, but I am inclined to think that they depend entirely upon the constitution of the patient and upon the influences to which he has previously been exposed. There is one highly predisposing cause of gangrene which I do not think is properly appreciated by the greater number of military surgeons, and that is the close proximity of fever and chronic diarrhœa patients to wounded men. I know that it is frequently impossible in military hospitals, where they are crowded for room, and with new cases constantly arriving, to classify wounds and different diseases and keep them separate; but I think it might be done far more than it is, and I am satisfied that the admixture of fever and diarrhœa cases with wounded men exercises a most deleterious influence upon the latter and predisposes their wounds to take on unhealthy action. And I also believe that if these cases were kept separate there would be far less gangrene in our military hospitals.

The notes of the following cases were kindly furnished me by my friend Dr. D. R. Brower, Ass't Surg. U.S.V., who was in charge of the Gangrene Camp at Hampton Hospital, Virginia, from May 22d to June 29th, 1864. During that time he treated one hundred and one (101) cases of gangrene without a single death, and this is a record which I think few men can equal.

Thos. B. Benedict, aged 32, private, Co. D, 7th Conn. Vols., received, on May 10th, a flesh wound of the right thigh from a Minié ball. The wound did excellently well until May 23d, when it began to look gangrenous. Concentrated nitric acid was applied locally, followed by yeast and lupulin poultices. For the first four days there was constant nausea; and as this was not allayed by the internal administration of opium, the stomach was blistered and dress-

ed with morphia. As soon as the system came under the influence of opium the gangrene was arrested. This was June 1st—eight days; but in that time the whole of the external aspect of the thigh had sloughed to the extent of one foot by eight inches. After the gangrene was arrested, the wound was dressed with tannin gr. v. to glycerine $\frac{3}{4}$ i., and subsequently with glycerine alone. He had all the stimulants he could take—eggnog, milk punch, beef-tea, &c. He progressed well until June 9th, when he had severe hæmorrhage from one of the perforating branches. This was arrested by ligation of the bleeding vessel. He improved well, and was transferred to New York, June 20th, able to walk on crutches.

Nat. Emory, private, Co. H, 7th New Hampshire Vols., aged 23, received, on May 13th, 1864, a flesh wound of the left thigh from a spent Minié ball. Did well till May 30th, when phagedænic sloughing began, and all the constitutional symptoms of gangrene made their appearance. *Ol. terebinth.* was used as a local application, followed by yeast and lupulin poultices. Opium being contra-indicated, *hyoscyamus* was used—two grains of the alcoholic extract every four hours. Tonics and stimulants freely. Gangrene was arrested June 13th. Slough extended circularly three inches in diameter. Dr. Brower remarks of this case that the wound was slight and the gangrene slight, but the treatment was not sufficiently powerful.

Geo. Spitler, corporal, Co. K, 76th Penn. Vols., aged 24, received, on May 11th, 1864, a penetrating flesh wound of the left thigh from a Minié ball. Did well until May 30th, when the wound took on phagedænic sloughing. Concentrated muriatic acid, followed by yeast and lupulin poultices, was used. Opium, tonics and stimulants freely. Dose of opium, one grain every three hours. The gangrene was arrested on June 3d.

The following case of acute mortification, which was also under the care of Dr. Brower, may as well be mentioned in this connection.

D. W. Pearson, private, Co. C, 22d South Carolina Reg't, aged 39, received, on June 20th, 1864, a flesh wound of the right tarsus, and also a wound on account of which his right arm was amputated at the middle third on the field. Did well until June 26th, 10, A.M., when the mortification first showed itself in the right foot. The man died at midnight, the entire leg being involved in the destruction. The mortification did *not* attack the stump of the arm. Constitutional condition good. Weight 180 pounds. Always in good health. There was no apparent reason whatever for the mortification. The leg was circumscribed with nitrate of silver, and opiates, tonics and stimulants were given in profusion.

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

FEB. 13th.—*Two Cases of Spontaneous Laceration of the Aorta.*—Dr. ELLIS showed the specimens.

CASE I.—*Rupture of the Arch of the Aorta; separation of the external and middle coats as low as the iliac arteries; Rupture into the left pleural cavity; Hypertrophy of the Heart; Disease of the Kidneys.*—The following account of the case was furnished by Dr. Webber, of Cambridgeport, the attending physician.

The patient was a large, powerful man, 55 years of age, a clergyman, subject to dyspepsia and some hepatic trouble since leaving college. On Jan. 29th, although suffering from what appeared to be rheumatic pain, he preached all day, ate a very hearty supper of indigestible food, rode home in an open sleigh, and was much chilled. On the following day there was an increase of pain in the shoulder and back, but he went out as usual. Immediately after dinner he was seized with pain in the back, extending from the middle of the neck to the waist, so severe that he rolled upon the floor, groaning and crying. When seen by Dr. Webber, shortly afterwards, the pulse was 60, not very strong, but full. The respiration was not affected, except during a paroxysm of pain. The latter extended over towards the left shoulder, and was not accompanied by tenderness. The sounds of the heart were natural, with the exception that they were not quite so strong as usual. Large doses of morphine were administered, with only partial relief. Ether was afterwards inhaled, with the desired result.

On Feb. 1st the patient was more comfortable, though the pain occasionally recurred. During the first three days and nights he did not sleep more than half an hour at one time. There was no appetite, much thirst and frequent vomiting. The pulse did not rise above sixty until the night of the 2d, when it was 74, and attended by some heat of the skin. At this time the pain returned so severely over the lower angle of the scapula, that an eighth of a grain of morphine was injected. In half an hour he was relieved, and slept quietly from 11 to 2 o'clock, when the pain again returned, but disappeared after the use of hot applications, and he slept. Waking at 5 o'clock, he, for the first time, complained of severe pain in front of the chest, extending to that point from the back and shoulders. At 6 o'clock he started up, groaning heavily with each expiration, then fell back dead. There had never been any cardiac symptoms before.

Autopsy at 3, P.M., Feb. 5th.—The left pleural cavity contained about six pints of dark, recently-coagulated blood and some serum. Much blood also lay beneath the costal pleura, on and near the spine. At the point of reflection from the root of the lung to the ribs, was a large ragged opening, upwards of an inch in length, through which the finger was readily passed into the tissues around. Much blood was also effused beneath the pleura on the right side.

The heart was considerably hypertrophied, the left ventricle being quite thick and round. No valvular disease.

Just beyond the left subclavian artery, and apparently involving a

small portion of it, was a ragged ulceration, upwards of an inch in length. From this point the blood had made its way between the external and middle coats as far as the iliac arteries, beyond which the vessels were not examined. Dr. Jackson noticed in one of them an appearance which indicated a re-entrance into the circulation. The blood had also infiltrated the sub-pleural tissue, as described, that of the anterior mediastinum, and in portions of the abdomen, along the spine. The ruptured vessel, though atheromatous, was not excessively so. The left lung was quite small, not congested posteriorly, and evidently compressed, but it still contained air, and presented an appearance different from that seen in cases of pleuritic effusion where the amount of compressing fluid is no larger. There had evidently not been time for that complete expulsion of air usually noticed under similar circumstances. The right lung was congested posteriorly, and was, in other respects, normal. No tubercular matter in either. The *bronchial glands* were considerably enlarged, and converted into calcareous masses.

Liver normal. Gall-bladder distended by bile.

The cortical substance of the *kidneys* was softer and much lighter colored than usual. Portions of that of the left were of a deep red color, as in commencing nephritis. On microscopic examination, the tubuli were found so crowded with granular matter, or minute globules, that no trace of a canal remained.

The mucous membrane of the stomach was of a greyish color, but in other respects normal.

CASE II.—*Rupture of the Ascending Aorta; separation of the external and middle coats as low as the renal arteries; Rupture into the Right Atricle; Hypertrophy of the Heart; Disease of the Kidneys.*—The specimen came from a patient of Dr. Minor, an Englishman, aged about 40, who had lived many years at Gibraltar, and was a servant in a gentleman's family. He was very reserved and quiet in his disposition, of temperate habits, and rather delicate health, complaining much of the coldness of the climate. Feb. 1st, 2d and 3d, he complained of some pain in his back, and of not feeling well, but waited on table as usual, at dinner, on the evening of the 3d (Friday). He came down stairs on Saturday, but after breakfast went to bed again, complaining of chilliness, and of some oppression at the epigastrium, which he attributed to "biliousness." He had no fever; tongue not quite clean; complexion muddy; eyes a little yellow; no appetite. Some laxative and diaphoretic medicine acted well. On the 6th, he had some sensation in the epigastrium, which he attempted to describe by saying that "his bile had burst," and which he thought relieved him. That night he was very delirious, getting out of bed, and pulling off his shirt. On Tuesday, the 7th, Dr. M. found him sitting up in bed, looking very ill, but not particularly pale, with a full pulse of 84. He answered questions well. There were no signs of hæmorrhage, no symptoms of any acute disease, and Dr. M. was at a loss to say what was the matter with the man. He was taken to the Mass. Gen. Hospital, where he arrived, much exhausted, at noon. He fell asleep soon after being put into bed, and died, suddenly, at 3, P.M.

The brain was normal.

The lungs did not collapse as readily as usual, but appeared healthy.

Heart very large; universally hypertrophied and dilated. Weight,

probably between two and three pounds. No more accurate statement can be made, as the organ was necessarily weighed with the thoracic aorta and much coagulum attached. The thin edges of the aortic valves had the reticulated appearance so frequently seen, but there was nothing in these or the other valves which could be regarded as morbid.

The pericardial surfaces were pretty firmly united by old reticulated false membrane, in the interstices of the upper part of which was some dark, recently-coagulated blood.

In the posterior part of the aorta was a longitudinal rupture of the internal and middle coats, an inch and a half in length, commencing from a half to three quarters of an inch above the valves. This was filled with a recent coagulum, continuous with one which occupied the space between the separated external and middle coats and the posterior mediastinum. The blood had also forced its way between the external and middle coats as far as the right renal artery, where it had re-entered the natural channel, as it had also done in the thoracic portion, through a transverse laceration three quarters of an inch in length. But the most important laceration through which the blood re-entered the circulation, was in the wall of the right auricle, where there was a slit an inch in length. This established a free communication with the posterior mediastinum and the original rupture in the aorta. There was considerable atheromatous disease of the latter, but it was by no means so marked as in many cases where persons have died from other causes.

Liver considerably congested, so as to present the "nutmeg" appearance.

The cortical substance of the kidneys was much more uniform and dense than usual, while the limits between it and the tubular portion were hardly distinguishable. A microscopic examination showed that the tubuli were enlarged and contained an unusual amount of granular epithelium.

The other organs were sufficiently healthy.

These cases have some peculiar features in common. In both there were marked hypertrophy and disease of the kidneys. This hypertrophy may be regarded as a sufficient cause of the accident, taken in connection with the disease of the arteries. But cases previously reported (Extracts from Records of Boston Society for Med. Improvement, vol. ii., p. 198) show that similar ruptures may occur without the existence of either, and there are innumerable instances of the existence of both lesions without the above results.

The immediate cause of death was probably the rupture, in one case into the pleura, in the other into the right auricle.

FEB. 13th.—*Monstrosity*.—Case reported by Dr. JACKSON, who received the specimen from Dr. T. E. Francis, of Brookline, on the 3d inst. "It was a female foetus, measuring 15½ inches in length, quite plump, and generally well developed. Feet somewhat inclined to varus. Over the upper part of the occiput the membranes of the brain protruded, forming a dark-red flaccid tumor, that must have been nearly as large as the top of the finger. It had been lacerated, and a probe passed readily into the cranial cavity. The brain itself did not seem to be involved in this protrusion. The cranium, having been partially prepared, shows a deficiency of bone at the upper part of

the occiput, and corresponding in size to that of the protruded mass; lower edge thick and rounded. There is also a slight deficiency of bone just behind the occipital foramen. The general form of the cranium is quite peculiar; the very low and retreating forehead reminding one of the Carib, or ancient Peruvian skulls.

The kidneys were greatly enlarged; being distinctly felt before the abdomen was opened, and forming a very prominent, dark-red, fleshy tumor upon each side; on dissecting off the peritoneum and the cellular membrane beneath it, they were found to be quite lobulated, and to contain great numbers of little cysts about the size of mustard seed. One of the organs weighed $5\frac{1}{2}$ oz. (avd.), and measured $4\frac{1}{2}$ in. in length, 3 in. in width, and about $1\frac{1}{2}$ in thickness; the other weighed $5\frac{1}{2}$ oz., and measured $4\frac{1}{2} + 3$ in., and about $1\frac{1}{2}$ in. in thickness. One was cut open, and having been examined microscopically by Dr. Ellis, there were found "healthy tubuli, tubuli of which the contents were granular, and dilated tubuli, containing some granular matter. The walls of the cysts were fibrous, and the contents perhaps a little granular." The cysts were not confined to the surface, but extended throughout the whole substance of the organ. The pelvis and infundibula were small but perfectly well marked; and the ureter was easily inflated to near the bladder, where it was cut off. The other kidney was preserved entire, and the pelvis in this also was well marked. The ureters were less than a line in diameter, and the bladder would not have held more than three or four drops of fluid.

The most remarkable circumstance in this case is, that in Dec., 1862, the mother bore a child that almost precisely resembled the one here described, in regard to the form of the cranium, the deficiency of bone, the protrusion of the membranes, the enlarged and encysted kidneys and the varus; and these are the only children she has borne. The case was described in the *Boston Medical and Surgical Journal* (Jan. 1st, 1863), with Dr. Wyman's description of the microscopical appearance of the kidneys, and reference to other cases of congenital encysted disease of these organs. In this first case, however, the ureters were impervious."

The crania and kidneys from both cases were shown by Dr. Jackson.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, FEBRUARY 23, 1865.

REPORT OF THE SURGEON-GENERAL OF MASSACHUSETTS FOR 1864.—This annual document, from the pen of our ever active and zealous Surgeon-General, contains, as usual, much matter of public interest. During the past year he has assumed, in addition to his previous labors, a general superintendence of all the Massachusetts agencies for the relief of our soldiers. Appended to his report, therefore, we find the various reports of the local agents in New York, Philadelphia, Baltimore and Washington, all of which give satisfactory evidence that the welfare of the Massachusetts men within the jurisdiction of each has been assiduously cared for.

The report proper contains lists of all the medical officers who have been commissioned in Massachusetts regiments during the year, or those whose term of service has expired, of those who have been promoted to the grade of Surgeon U. S. Volunteers, and of those whose earthly career has closed during the same time. A roster is also given of all the commissioned medical officers of Massachusetts regiments mustered into the service of the United States since the beginning of the rebellion, by which it appears that nearly three hundred members of our profession have been sent into the field with our State troops.

Due mention is also made of those gentlemen who have rendered volunteer service on sudden emergencies on call from the War Department. Passing over an account of the organization of the State agencies before alluded to, we quote the following expression of opinion on a very important subject which occupies many minds at the present time. In concluding his remarks on these agencies the Surgeon-General says :—

"I venture, however, with all due respect to the opinions and convictions of others, to suggest that, while these agencies should continue to receive the fostering care of the State, and in the exigencies, the support of individuals and organized societies, the munificent and cheerful contributions of the public should take a new direction, viz., that of founding and supporting institutions for those who have been honorably discharged by expiration of term of service, and who from sickness and wounds require the sympathy and consideration to which their sacrifices and honorable service entitle them. The care and maintenance of the families of those who have died in the service of their country, or of those who still remain requiring assistance, should be objects of more systematic action than has yet been taken. In making these suggestions, I am not unmindful how much, in the earlier periods of the war, the government was indebted to the popular aid given it through individuals or organized societies. The people cheerfully pay the heavy taxes imposed upon them by the legislation of Congress for the relief of the sick and wounded, and the Medical Bureau of the regular army, under its present energetic and accomplished head, has proved equal to every emergency, so that while the stream of benevolence must still continue to flow it should take other directions than those filled by the liberality of the general government. The opinion thus entertained is fully endorsed by those surgeons from Massachusetts who have had the energy and forethought to provide for every emergency through the Medical Purveyor of their departments, and the test of whose professional excellence has been their ability to supply those over whom they have had the charge with everything necessary for their comfort from government appropriations. The welfare and comfort of our troops, however, *in transitu* through cities and other points, seem to demand a continuance of the various relief agencies, supported by voluntary contributions, and while there should be no diminution of public interest in the alleviation of the distresses of war, the provision and distribution of sanitary supplies in field, camp or hospital, furnished liberally by the government, should be solely under the direction of the proper officers, who are responsible for their disbursement, and whose demoralization in some cases, would be prevented, had they sooner possessed themselves of the knowledge

necessary for a return of timely requisitions upon the Medical Pur-
sors of the army."

To the suggestion contained in the first part of the above extract we cordially respond. The Sanitary Commission has already, if we mistake not, taken some steps in this direction. We are not prepared, however, to think that the time has yet come for an entire suspension of its operations in the field or in the military hospitals. Greatly as the resources of the medical department of the army have been increased since the war began, we can hardly conceive of the time when an emergency may not exhaust them, and make the relief which this noble organization affords not only most welcome, but absolutely indispensable. Within a few months we have seen it, at City Point, furnishing daily supplies to large, well-organized hospitals, which the resources of the government did not afford. Shirts, socks, shoes, hats, and numerous other articles, not merely of comfort, but actual necessity, were daily issued to numerous applicants, who, without this source of supply, would have been obliged to do as well as they could without them. Milk punch was daily furnished to numerous patients by the Commission, the stimulant being supplied by the surgeons from government supplies, while the other ingredients were given by the Commission. While, therefore, it is evident that private charity need not be taxed so heavily as at first to meet the wants of our army in this direction, we believe that its efforts should not be at once suspended, and that its activity should only diminish as that of the government increases. We have full confidence in the officers of the Commission. They are of the people, and know what the nation wants. They can have no possible inducement as an organization to thrust themselves unnecessarily between the government and the soldiers. Let the Surgeon-General of the United States declare to the nation that the time has arrived when its kindly offices are no longer required (an announcement which we frankly confess we do not expect), and then, and not until then, in our opinion, will be the time for diverting entirely from the army proper the relief which has during the past four years saved thousands of lives to the country.

OVARIAN EXTIRPATIONS.—Dr. Charles Clay publishes (*Glasgow Medical Journal*, Oct., 1864) a report of his 109th and 110th cases of ovarian extirpation, and gives the following tabular results of all his abdominal operations for the last twenty-two years, i. e. from 1842 to 1864:—

| Cases from 1842 to 1864. | Number. | Recoveries. | Deaths. |
|---|---------|-------------|----------------------|
| Ovarian extirpations | 110 | 76 | 34 |
| Cæsarian section | 1 | 0 | 1 |
| Entire removal of uterus and appendages (being fibroids) through the parietes abdominales | 3 | 1 | 2 |
| Cutting down upon ovarian tumors (in cases of almost universal adhesions), to reduce their bulk from within, and set- ting up ulceration where removal was impossible | 4 | 4 | 0 |
| Cysts tapped and injected with tincture of iodine | 6 | 4 | Two filled again. |
| Total results | 124 | 85 | 37 |

It will be here seen, that in my practice of twenty-two years, the recoveries in operations of ovariectomy alone are about seventy per cent.—a result that I cannot but consider flattering. The reader will also observe, that during the above period I have extirpated three fibroid uteri with their appendages entire, through the abdominal parietes, as in ovariectomy. These I believe to be the first operations known of the kind. The first and second operations were in 1844, and the last in January, 1863, and reported in the *London Obstetrical Society's Transactions*, vol. v. I mention these particularly, because Professor Koeberl operated similarly on a fibroid uterus on April 20, 1863, and stated his to be the first operation of the kind in the world; whereas my first and second operations were nineteen years, and my last some months prior to his operation. The fibroid in my last case weighed eleven pounds.—*Amer. Journal of Med. Sciences.*

EXISTENCE IN THE HUMAN SUBJECT OF ORGANS UNPROVIDED WITH NERVES, LYMPHATICS, OR CAPILLARIES.—Prof. Simpson, of Edinburgh, in an article in a recent number of the *Medical Times and Gazette* (Oct. 29, 1864), gives an account of some investigations relative to the structure of the umbilical cord and placenta.

The following are his general conclusions :—

1. The volume of the umbilical cord and foetal portion of the placenta is formed of nucleated cellular tissue, traversed by the tubes of the umbilical arteries and vein and their numerous placental subdivisions; and the cord and foetal surface of the placenta are covered by a sheath of serous or seroid membrane.
2. Into the composition of these parts no capillaries, vasa vasorum, lymphatics, nor nerves are found to enter.
3. Hence, in human anatomy, we have these organs, forming a large mass, weighing on an average about two pounds, presenting a type of structure resembling that of some of the inferior zoophytes. And,
4. The human mother and her child, two of the most highly-organized beings in existence, are thus temporarily united together, during the intra-uterine life of the latter, by structures of the lowest zoölogical type.—*Ibid.*

PROPAGATION OF PUERPERAL FEVER BY ACCOUCHEURS.—M. GRISAR has recently brought this subject before the Brussels Academy of Medicine. The following is M. G.'s personal experience. In December, 1842, he delivered a woman with the forceps, who died of puerperal fever on the second day; and between then and the 19th of the following March, 16 out of 64 women delivered by him were attacked by puerperal fever, 11 of the number dying. As he found the disease did not prevail in the practices of other physicians, he came to the conclusion that he had been the means of communicating the contagious principle of the disease, and therefore took every possible precaution. Until the end of 1862, therefore, for twenty years, he did not meet with another case; but at the end of that year he had a fatal one; and between December 5th and January 26th following, of 9 women delivered by him 8 became the subjects of the disease, and of these 4 died. He had taken every precaution as respects ablutions,

ing, &c., but it was not until after he had suspended practice for a month that the disease ceased to appear among his patients. M. Guerin, commenting upon the above facts, observes that Chomel always called in Baudelocque to his wealthy patients, who, unattached to any maternity, he had found to be the only accoucheur of his day in whose practice puerperal fever did not appear; and more than one practitioner, renowned for his knowledge and talent, has acquired among the public a terrible reputation for the calamities which attended his presence. M. Guerin adds that he himself, as well as various other practitioners, have, during the prevalence of epidemics of puerperal fever, experienced symptoms which could only be explained by the presence of a poisonous miasm, and which may doubtless be transported, notwithstanding ablution, change of clothing, &c. Such persons suffer from general uneasiness, fetid breath, eructations of a peculiar odor, and somewhat loose and strong-smelling stools. They should observe the greatest cleanliness, freely breathe the fresh air, and repeatedly purge themselves. When the fever occurs in their practice, they should make it a solemn duty to abstain for a while from attending other cases.—*Med. News and Library*, from *Med. Times and Gaz.*, Dec. 10, 1864.

SANITARY CONDITION OF ARMOR-CLAD SHIPS.—It would seem, according to the Secretary of the Admiralty, that our now numerous armor-clad ships are to be looked upon as little better than pest-ships, except for temporary purposes; that whatever advantages our fleet may have gained, by armor, in fighting capacity has been lost in health capacity. To save the crews from the more remote contingencies of warfare, they have been exposed to the more immediate dangers of deadly and ever-present disease. Under the old system of naval construction, for one man lost in actual strife several were needlessly lost from disease. Under the present system, while the probabilities of the former source of loss are diminished, those of the latter are believed to be increased immeasurably.

History teaches us that the protection derived from defensive armor in the field of battle was so greatly outweighed by the hindrance to facile motion, that in the end bucklers and mail were done away with, and men put their trust in a better system of offence and greater agility. Is this also to be the history of armor in the navy? At least it must be admitted that there is a close parallel between the sanitary aspects of the question; and that, while casing our ships in armor, we have brought the crews into the same miserable health condition which was peculiar to the mediæval warrior clad cap-a-pie in steel. But can it be that naval science halts so that she is unable to solve the question of ventilation of the between decks of an ironside? Or is it that she obstinately refuses, in spite of warnings and experience, to give to the question the degree of importance it deserves, and submit it to the same careful consideration which is at all times conceded to the fighting and sailing qualities of a ship? It is permitted to us, in the absence of satisfactory evidence to the contrary, to assume that the latter suggestion is the correct one. We have just grounds to believe that the question of ventilation is not beyond the reach of solution.—*Medical News and Library*, from *London Lancet*.

HYDROPHOBIA IN MAN.—M. Girard de Cailleux, inspector-general of the different lunatic asylums for the department of the Seine, at one of the last meetings of the Academy of Medicine, read a memoir entitled, "On Rabid Hydrophobia considered as a disease which can spontaneously develop itself in Man under the form of Acute Febrile Delirium," and from which I subjoin the following extracts:—

1. If it be true that rabid hydrophobia is a virulent disease transmissible by inoculation from animals to man, it is equally true that it can develop itself, and does so more frequently than it is believed, spontaneously in man, under the form of acute febrile delirium, so frequent in lunatic asylums.

2. It then affects man in a character which is proper to the species, just as other diseases which manifest themselves among animals take a peculiar character in each species, albeit the peculiar nature of the affection does not lose its identity.

3. The causes which produce rabid hydrophobia are—in the first place, a predisposition *sui generis*; and then a multitude of occasional causes, which, by their great variety, often lead into mistake on the true nature of the disease.

4. The similarity of the symptoms, of the progress, of the duration, of the termination, of the structural injuries, between rabid hydrophobia which is communicated, and acute febrile delirium, so often met with in lunatic asylums, establishes in these two affections an identity of nature worthy of the attention of pathologists, and destined to throw new light on such an interesting subject.—*Paris Correspondent of London Lancet.*

WM. H. BREWER has been appointed Professor of Agriculture, Daniel C. Eaton Professor of Botany, and Addison E. Verrill Professor of Zoölogy, in the Sheffield Scientific School of Yale College.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, FEBRUARY 18th, 1865.

DEATHS.

| | Males. | Females. | Total. |
|---|--------|----------|--------|
| Deaths during the week | 51 | 32 | 83 |
| Ave. mortality of corresponding weeks for ten years, 1853—1863, | 39.7 | 39.0 | 78.7 |
| Average corrected to increased population | 00 | 00 | 86.10 |
| Death of persons above 90 | 0 | 1 | 1 |

BOOKS AND PAMPHLETS RECEIVED.—A Dictionary of Medical Science, &c. By Robley Dunglison, M.D., LL.D., Professor of the Institutes of Medicine, &c., in the Jefferson Medical College of Philadelphia. A new Edition, thoroughly revised, and very greatly modified and augmented. Philadelphia: Blanchard and Lea. 1865.—Transactions of the American Medical Association. Vol. XV.—First Annual Report of the Board of (Mass.) State Charities; to which are added the Reports of the Secretary and the General Agent of the Board.

DIED.—In this city, February 15th, Dr. James M. Phipps, aged 47 years.

DEATHS IN BOSTON for the week ending Saturday noon, Feb. 18th, 65. Males, 51—Females, 32.—Accident, 1—apoplexy, 1—disease of the brain, 6—burns, 1—cancer, 3—cholera infantum, 1—consumption, 14—convulsions, 1—croup, 4—dropsy, 1—dropsy of the brain, 2—empyema, 1—erysipelas, 1—scarlet fever, 3—typhoid fever, 1—disease of the heart, 3—infantile disease, 6—intemperance, 2—disease of the kidneys, 1—laryngitis, 1—congestion of the lungs, 4—inflammation of the lungs, 5—old age, 2—paralysis, 1—peritonitis, 2—phlebitis, 1—puerperal disease, 1—pyæmia, 1—rheumatism, 1—smallpox, 4—unknown, 6—whooping cough, 2.

Under 5 years of age, 31—between 5 and 20 years, 10—between 20 and 40 years, 20—between 40 and 60 years, 11—above 60 years, 11. Born in the United States, 56—Ireland, 20—other places, 7.